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EXPERIENCE-BASED LEARNING IN VIRTUAL ENVIRONMENTS

ABSTRACT: This paper presents examples (cases) of integration of knowledge management techniques – the community of practice and eLearning – into competence-developing virtual learning environment. The participants of the formed community of practice are ready to share their own experience, learn from each other, get feedback from the experts in the field, and work in groups led by specially trained facilitators. Besides, clear e-course objectives and learning trajectories with challenges that correspond to the level of knowledge and skills of the participants actualize the need for problem-solving through critical thinking. Space for effective communication, collaboration and co-creation fosters creativity and leadership. Results of the described successful e-course indicate that 40% of participants feel arousal, ‘drive’ and have positive memorable learning experience, while every fourth learner feels ‘actively immersed’ in virtual learning environment.

KEYWORDS: eLearning, experience-based learning, community of practice, knowledge management, immersion.

INTRODUCTION

The key element in the art of knowledge management using web-based tools (eLearning) is the ability to create a specific space (or environment) where learners and practitioners:

- can be involved in sharing experience, generating ideas and finding new solutions to existing social challenges;
- can choose their own learning trajectories for acquisition and development of necessary competences and skills.

Academic mobility programmes - on one hand, and Massive Open Online Courses (MOOCs) - on the other, greatly expand the horizons on the way towards new educational products. Educational market needs products which consist of two components: educational service and experience, where “*services are intangible while experiences are memorable*” (Pine & Gilmore, 1999). People seek to improve and diversify their life through immersion in various activities and obtain various experiences that stimulate (positive) emotions. Educators are aware of the fact that emotions have the ‘*power to open or close access to learning, memory, and ability to make connections*’ (Vail, 2010).

Today universities are facing difficulties with motivating students to acquire knowledge that may be relevant to their distant professional future, when everything around them is changing so dramatically and rapidly. So when it comes to knowledge management in terms of eLearning, a teacher (tutor) should focus on the nearest future - “tomorrow”, because this not very distant prospect arouses greater interest in students and stimulates idea of a generation process, which is a unifying element of any virtual learning environment. The basic reason why people are willing to obtain a different experience are usually described as follows: they seek to feel, experience something new that is different from their everyday activities and routine. Learners get a chance to become part of an alternative life, to experiment with their own identity, to play a different role (Firat & Dholakia, 1998).

Successful integration of communities of practice and eLearning in virtual learning environment means that up-to-date knowledge and current experience are concentrated in one place and become a valuable innovation strategy in education.

BACKGROUND

Our team gathered around Ukrainian Distance Learning System (UDL) had an idea to combine the two techniques of knowledge management – Community of Practice and eLearning – into one learning process by creating virtual learning environment. The topic of decentralization of public administration has become the basis for the formation of the Community of Practice (CoP), which means a group of people who share concerns, deal with complex issues concerning a certain topic, broaden their knowledge and experience in a professional field, as well as interact on a regular basis (Lave & Wenger, 1998). With the development and implementation of new

models of public services, more and more new practitioners have joined CoP in order to look for new solutions to more efficient use of models or to promote developed models to other local governments. Today CoP brings together more than 3 000 committed participants, with a group of well-trained facilitators and involved experts, which enables us to scale up the project results horizontally and to unlock new ways of development. Furthermore, the initiated CoP is passionate for collective learning and it is a perfect place for eLearning: we can state that we have created a market where we know what our users (customers) value the most, and we can provide them exactly with what they need, rather than focusing on achieving competitive advantage over other providers of educational services, attracting as many customers as possible. In 2011-2015 a series of e-courses were organized and carried out for different groups of learners from CoP (civil servants, representatives of local governments, students in public administration, etc.).

We have defined learners' immersion in a learning situation – in the experience-based eLearning context – as a process where participants get new experience, which is supported by the existing experience of learners and which helps them contribute to a continuous development of their life competencies such as idea generation, decision-making, adequate response to a situation, maintaining a constructive dialogue, teamwork and supporting own identity.

Our goal is to transform the learners' behaviour in a virtual learning environment and to move it from a passive absorption - through social and cognitive presence – to active immersion and intellectual escapism, when during eLearning process learners may lose control of time, live their 'second life' (different from routine) in the virtual Community of practice, share experiences, generate ideas and develop new knowledge and skills.

Our recent benchmark in eLearning has been that over 40% of learners are actively involved and absorbed, and 22% of the participants in each e-course are in a state of complete immersion.

FORMING COMMUNITY OF PRACTICE (COP)

Formation of CoP requires responsible attitude of each participant in the processes of knowledge management. The development of such community is based on the knowledge interaction – through experience and passion for change – can be achieved when its participants share aforementioned

principles when they are united as personalities, subjects of knowledge construction, professionals and practitioners.

Besides, regular piloting of e-courses on various topics also encouraged specialists in a specific area of interest to join the all-national community. Whenever a pilot e-course was run, the organizers had to deal with the following challenges: to avoid dropout of the e-course of participants by providing them with space for their social presence, guarantee their maximum cognitive presence and engage the learners to enable each of them to be involved in various activities. At this stage of the community development, we found out that the key success factors for the formation of an effective and open for interaction virtual learning environment included trust and reduction of the psychological distance between the practitioners (learners) and the teachers (tutors). The quality of each pilot e-course was guaranteed through the 4A model: Attention, Actualization, Attraction, and Action (Katernyak, Loboda & Sheremet, 2009), and it was measured in three dimensions: effectiveness, efficiency and comfort. Almost 90 % of the e-course graduates recommended their colleagues to take the e-courses on various topics that are available in our virtual learning environment.

And when CoP grew up to 2,000 members in 2013, it became viable and capable of self-development. Some members have left, but even more have joined the community. In 2014 it brought together more than 2,000 members, and today there are 3,072 participants. When the community became self-sufficient, we decided to conduct another e-course at a higher quality level, according to the following success factors:

1. objectives of the course meet the needs of the community, where each resource or activity is checked against its appropriateness in the context of the curriculum, achievement of the e-course objectives, where each task corresponds to the level of professional training of the community in general and ability of every participant to successfully fulfil it;
2. interest of every CoP member in social presence, when everyone has the right to be involved, and the involvement of everyone is fairly evaluated; everyone can ask questions, and every answer will be 'heard'; everyone has the right to speak, to share own experiences;
3. creation of an enabling environment, the so-called 'ecosystem' around each participant, which will encourage collaboration, creativity, idea generation, development of new solutions and finding ways to implement them.

Among the scientists who deal with the issues of creativity, there is a truism that a person is able to create and change things for the better

only after having at least 10 years of technical and knowledge immersion in a specific area of activity. In 2015, our CoP advanced to a new level of development as 12% of its members had already had over 10 years (and 15% - from 5 to 10 years) of practical work experience in local and regional development, so they were ready for creative activities. Besides, almost 70% of the participants had taken part in the previous community events: e-courses, summer schools, workshops, etc., so they had necessary technical preparation for eLearning. Thus, a critical mass of participants was formed out of those who were well-trained based on e-learning and a common topic of the training. Though at the same time, 35% of CoP members have never developed or participated in the development of projects, and 33% of them took the e-course in the CoP for the first time.

So finally, in November 2015, the branded e-course in Project Management (PM-5) was launched, and it lasted for five weeks on the web-site of the Community of Practice – <http://udl.despro.org.ua>. We succeeded in achieving a high level of active absorption and immersion of some part of its participants.

EXAMPLES OF OPEN E-COURSES IN THE COP

In general, out of 306 participants who started the e-course PM-5 (fulfilled the first task), 208 (68%) came to an end, which is an acceptable rate for such kind of e-courses in a working place, while 185 of learners (60%) successfully completed it by receiving 60 (pass grade) or more points (out of maximum 100). Among those who successfully completed training in the e-course, 25% of the participants experienced the state of immersion during the performance of different types of learning activities: based on their own observations, they felt the freedom, joy, sense of satisfaction and expression of their skills, the influx of ideas and/or a pleasant surprise.

COMPETITIVE SPIRIT

The e-course consisted of four modules and it was offered in a self-paced mode, open 24/7. Each participant had an opportunity to plan time to study a particular module. The participants could have access to the materials of the next module only after they passed the tests in the previous module. They were able to come back to study materials and retake the attempt to upgrade the score. The use of a constantly updated rating – top 10 or 20

highest grades for each course activity (test or assignment) – also supported competitive spirit between individual learners. Besides, the e-course participants could see their own progress in the record book and / or in the section of their course completion status.

In addition to the tests, tutors offered the participants an interesting individual task where learners had to analyse the concepts of existing projects and to offer their own variant, adapted to the realities of the respective community. The best individual works of the participants were posted on the home page of the course so that others could get acquainted with them.

At the beginning of the e-course, 28% of its participants mentioned the following expectations: new knowledge for project preparation, learning from the experience in project management and professional development, self-improvement. We tried to trigger a nonstandard, creative and innovative thinking of the participants through the creation of ‘situations’, by which we mean the momentum for a change that requires acquiring new knowledge for decision-making. As a result, the learners develop new competencies, get new impressions and experiences. Moreover, the learning situation involved both individual and team work and they were focused on creating positive experience of the participants.

COMMUNICATION AND COOPERATION

The participants of the PM-5 course had an opportunity to join a team working on case studies, after they selected one of the seven cases proposed by the experts. The cases varied in subjects and levels of complexity. The use of case method in eLearning requires an effective communication system, which includes communication within the team that can be guided by a facilitator, and communication with an expert. The facilitator’s task is to provide freedom to every team member to be involved and to make individual contribution in the teamwork. It was confirmed by 40% of the e-course graduates that they had the feeling of arousal, ‘drive’ and positive memorable learning experience.

The expert’s task is to provide clear information on the case, instruction, and timely feedback to the fulfilled tasks. Effective communication also means that every member of such cooperation understands how this work helps to meet the course objectives. Learners involved in the teamwork were immersed in the process of eLearning and spent up to three hours a day online. After two weeks, some teams received the deserved “excellent” grade for their work, but they also extended their cooperation and friendship outside the course. There were other teams that barely reached the finish line.

Nevertheless, it was a useful experience for each member of the teamwork when they started forming their own teams and implemented their own projects. Best practice of the teams and professional comments made by the experts were also posted on the home page of the e-course.

To organise communication within the teams, different types of forums were used: forums for separate (visible and non-visible) groups, forums with delayed answers from other members. We realise that today's LMSs do not provide a complete toolkit for organizing the teamwork and for integrating its results in the course register.

Special attention during the learning process in e-courses is usually paid to the expert forums. The e-course participants noted that even if they skip some practical tasks or tests, they could get all necessary information in forums where experts, lawyers, and especially other participants shared their knowledge and experience. The e-course PM-5 included the whole range of various forums for communication:

- renowned experts gave answers to the most important questions the participants had concerning specific features of the local development projects,
- 'Legal Advice' Forum was used by the participants to explore the issues related to the procedures and regulations of the newly elected local authorities,
- in the Forum of representatives of the Offices on local government reform, the participants discussed mechanisms and tools used to achieve economic, legal and social capacity of communities and councils,
- all forums were open throughout the e-course, where the participants had an opportunity to discuss the course materials with tutors, according to four main modules of the e-course;
- one of the most valuable achievement of the e-course PM-5 was its forum dedicated to brain-storming for generating interesting ideas of future joint projects. Its discussion threads were opened by the course participants who raised a lot of topical issues, offered no fewer options to address them, as well as the diversity of ideas and project proposals.

In general, the learners in the e-course read almost 140,000 posts and published around 23,500 posts: as forum posts, news, notes, private messages within the e-course, filled in surveys, fulfilled assignments and so on. Hence, every learner's input was, on average, 36 posts.

Tutors, facilitators and experts supported all discussion threads in the forums and gave very quick feedback, which made the communication very dynamic, and almost 100% of the e-learning process was taking place in real time.

Having analysed the results of the final survey in the e-course, we can state that the learners' immersion in the process of eLearning means living a 'second life'. Active absorption and immersion in the intellectual environment of individual and joint construction of knowledge, with a focus on 'tomorrow' using real-life case study, can guarantee the development of life competencies necessary for performing high-quality professional functions. Thus, the combination of two techniques – Community of Practice and eLearning – can give the effect of immersion in virtual learning environments.

CONCLUSION

We have integrated two knowledge management techniques – CoP and eLearning – and created the virtual learning environment as a new value innovation for competence-developing education. While designing the eLearning process using the '4A' model (attention – by needs in knowledge and skills, actualization – by clear eLearning objectives, attraction – by involving in CoP, and action – by overcoming challenges and problem-solving), we endeavoured the effect when the learners feel actively 'immersed' (intellectual escapism) in virtual learning environment. Our latest success in organization of e-courses for 300-400 learners has ensured over 22% learners' full immersion, while 40% participants had the feeling of arousal, 'drive' and positive memorable learning experience. The statistics report shows from 5 000 to 7 000 hits in e-course site per day, including weekends, where most participants spent up to 2 hours in the e-course daily.

So, the uniqueness of our approach is that (1) e-courses are especially tailored to meet the CoP's needs, (2) there is clear understanding among the learners of the e-course its goals (objectives), (3) the level of challenge of learning tasks corresponds to the level of knowledge and skills of the registered CoP participants, and (4) clear and timely feedback to performed tasks.

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